

ABSTRACT OF THE DISCLOSURE

A endovascular graft having at least two thin wall graft members, with at least one of the thin wall graft members configured to be deployed within a lumen of another thin wall graft member. The thin wall graft members may be coupled or connected to each other so as to allow relative axial displacement of the sections, or they may be separate members that have dimensions and a configuration to allow coaxial deployment within inner lumens of each other. By having multiple thin wall graft member, the graft may be built up within a patient's vasculature in steps through a delivery catheter system that is smaller in profile and more flexible than a delivery catheter system configured to deliver a single component graft. The graft of the invention may be delivered percutaneously or intraoperatively.